

ABSTRACT

A scanning device for: scanning coded data disposed on a surface; and generating interaction data based on the sensed coded data, the interaction data being indicative of interaction of the scanning device with the surface; the coded data including, at a plurality of locations on the interface surface,
 5 a corresponding plurality of coded data portions, the scanning device comprising:

- (a) a laser source and scan optics configured to emit a scanning beam through an aperture in a housing of the scanning device, the scanning beam being directed in first and second orthogonal directions to thereby generate a raster scan pattern over a scanning patch, the scanning patch being positioned to cause the exposure of the at least one coded data portion when the surface and the
 10 sensing device are positioned operatively with respect to each other;
- (b) a photodetector for detecting reflection of the scanning beam from the surface, thereby to capture sample information;
- (c) at least one analog to digital converter for converting the captured sample information into sample data;
- 15 (d) a first framestore for storing successive sample data as image data;
- (e) an image processor for processing the image data to generate processed image data;
- (e) a host processor for generating the interaction data based at least partially on the processed image data.